

SERVICE DESIGN FOR DEATHCARE: SOCIAL INNOVATION THROUGH GAMIFICATION

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1. Introduction

Little research has been done in service design about death. Attitudes towards death as a taboo have evolved into 'Dying Well' to promote 'a good death', meaning a positive idea of death, and to reduce the trauma of the bereaved after a loved one's death. The study highlights the importance of raising awareness about 'a good death' in a holistic view of life. Lofland [1978], cited by Bryant [2003] argued that social discourses about dying and death can solve the social problems caused by grief. In recent years a movement has emerged in some UK healthcare and palliative care associations for discussing death, including the 'Dying Matters Awareness Week' and 'Dead Celebration'. Especially in a secular way of community involvement, the key question of the research is: 'How can we encourage people to talk more freely about death?'. Although the topic is a global issue, the scope of this research paper is limited to England and Wales by noticeable demographic changes in religion. In this study, more than 36 people among those who live in London has been participated, which was carried out for about six months. By applying gamification to social innovation, this research aims at creating an innovative strategy for the new Death Care Service (DCS) design with a view to positively changing the collective mindset towards death by sharing ideas of better health and a 'good death' through a game.

2. Methodology

In order to achieve the aim, the methodology is outlined with the four stages in the double diamond model developed by the Design Council for both qualitative and quantitative design research: discover, define, develop and deliver. Following the iterative process, 'discover' and 'define' were first demonstrated. To analyse the correlation between awareness of death and age, fear of death, relationship, knowledge and the needs of pre-planned dying, the research began with a questionnaire and observation methods with 36 people in London aged 20 - 70, to consider a multidimensional concept of death anxiety based on the Leming Fear of Death Scale [Leming 1979–80], followed by a literature review to identify people's current perceptions of death. To investigate latent needs about DCS, insights were sought using in-depth interviews with pastors, funeral directors and people in the pharmaceutical industry by comparing various services associated with death, in conjunction with supplementary desk research and a focus group with six Christians aged 30 - 70, because Christianity has traditionally dominated UK funeral rites. In the 'develop' and 'deliver' stages, further ideas and elements for prototyping were collected to re-define the meaning of DCS in positive aspects of death through gamification by case studies in the context of popular culture, leading to better health by reducing grief at the end of life. Moreover, exploratory in-depth interviews were conducted with people involved in dying-well (health and palliative care professionals), academics, and design areas,

including experts in these fields, to test the feasibility and new market opportunities for the DCS. Eventually, a pilot test was carried out exploring user experiences and capturing emotional values to evaluate the role of DCS design and understand how gamification can be applied to service design. Based on an analysis of interviews, the target group in the study was selected as a relatively young generation of being little researched about death-related resources. While six postgraduates who are aged 20 - 30 played the game of a pilot test, observation and semi-structured interviews were also conducted, moving to an open dialogue. Finally, a design-led strategy was recommended.

3. Social innovation in service design – death education and gamification

To develop the design-led strategy, the following sections identify the definition of service design, death education, and using gamification to create a platform as a social innovation. In the latter part, the gamified design in DCS will be proposed to solve social issues and create new values. By prototyping, a game platform will present an interactive system in which it affects how users are influenced by design and gamification elements.

3.1 Service Design and Death education

Service design has evolved into the realm of intangible experience in conjunction with a product or service, by playing an important role in drawing people together in the community [Aaltonen 2010]. It enables people to both produce and consume ideas for sustainable development through internal and external influencers, as the service design of community-based participatory research increases in healthcare [Harder 2013].

According to Aries [1981], cited by Howarth [2007] good death depends on learning about dying and being prepared for death, called ‘tame death’. Hence, the extended meaning of DCS will be distinct from Health Care Service (HCS) in non-medical treatment as a part of Social Care Service (SCS). ‘Education about any death-related topic’ - called death education - helps to reduce the fear of death by providing information about death and dying [Corr] cited by Bryant [2003].

Table 1. Death education (source based on [Corr] cited by Bryant [2003])

Death Education	
Goals	Expected Values
1. To enrich the personal lives of those to whom it is directed.	<ul style="list-style-type: none"> Understanding self-identity (e.g. aware of limitations as human beings in gratitude.)
2. To inform and guide individuals in their personal transactions with society.	<ul style="list-style-type: none"> Gaining knowledge of available services in case (e.g. end-of-life care, funeral practices, and memorial rituals)
3. To prepare individuals for their public roles as citizens.	<ul style="list-style-type: none"> Having own critical views for social issues (e.g. advance directives in healthcare, assisted suicide, euthanasia, organ and tissue donation)
4. To support individuals in their professional and vocational roles.	<ul style="list-style-type: none"> Creating additional positions about death (e.g. teachers, caregivers, counselors for the bereaved)
5. To enhance the ability of individuals to communicate effectively about death-related matters.	<ul style="list-style-type: none"> Guiding effective communication about death (e.g. discussing funeral costs)
6. To assist individuals in appreciating how development across the human life course interacts with death-related issues.	<ul style="list-style-type: none"> Accepting flexible attitudes about life (e.g. self-conquest about problems in adolescence)

Table 1 emphasise the significance of teaching everyone in communities more about death. Despite the needs of death education, the two key findings from the questionnaire revealed that the majority of

the respondents have less awareness of a good death despite the acceptance of talking about death. Secondly, over 85 % of respondents were averse to seeing a preview of their funeral. Reflecting the marked reluctance of people to consider their own death rather than someone else's, an indirect approach is needed to enhance awareness of death. Thus, the question arises, how can essential knowledge about death and dying be cognitively achieved? On the other hand, focus group data indicated that a funeral can be a celebration rather than a ceremony. Gratitude emerged as the key factor which enables people to be less anxious about death, and they also benefit significantly from close friendships and community. The focal contexts for death education are therefore: celebration, gratitude and community-based discourse.

3.2 Gamification as a platform

Designing entertainment services for DCS may offer a secular solution, in the absence of religious support. 'Gamification' is a framework for services; using the elements of game play mechanics with non-game concepts has a positive impact on engaging people and enhancing loyalty [Wallace 2010], [Theaker and Yaxley 2013] citing [Deterding et al. 2011]. This paper suggests that play mechanics ('gamification') may be a way to tackle social issues by using design in death education. Design can be a powerful social tool to create an innovative environment with high social and moral responsibility [Papanek 1985]. Drawing on literature reviews and findings, Table 2 identifies the main issues in the current UK cultural context and the strategic directions for the new DCS.

Table 2. Strategic directions for DCS (sources adopted from [Doka 1983] cited by [Bryant 2003], [Banks], cited by [Bryant 2003], [Rosenberg and Peck], cited by [Bryant 2003], [Kingsepp 2007], [Smithers 2011], [Mintel Research 2012], [Jackson 2012])

Issues	Background	Strategic directions
<ul style="list-style-type: none"> • Vulnerability to guilt, shame, stigma and expense due to the lack of provision for a good death when healthy 	<ul style="list-style-type: none"> • A social mood of being reluctant to talk about death • Death awareness movement has arisen in the UK recently 	<ul style="list-style-type: none"> • Configuring platforms for 'Death education' on and off-line in collective intelligence • Encouraging design discourse for both good death and better health: cultural behaviour change by being immersed to the mainstream • Empowering for digital ages to produce and consume ideas and contents • Producing positive death images for changing the mindset • Fueling motivation for healthy people to envision own death and pre-plan dying
<ul style="list-style-type: none"> • Dramatically increasing funeral costs over time [Mintel research 2012] • Costs charged exorbitant to customers by funeral aid firms [Smithers 2011; Jackson 2012] 	<ul style="list-style-type: none"> • Uncertainty of the timing in which DCS is to be consumed [Banks cited by Bryant 2003] • Information asymmetry, principal-agent failures, and inefficient in pricing [Banks cited by Bryant 2003] 	
<ul style="list-style-type: none"> • Aging society requires the study of dying and death [Doka 1983 cited by Bryant 2003] 	<ul style="list-style-type: none"> • More interested in how to prepare for the end of life [Doka 1983 cited by Bryant 2003] • Patients and older people have been mainly focused upon 	
<ul style="list-style-type: none"> • Death has lost its link to reality in digital games 	<ul style="list-style-type: none"> • Hyperreal negative images of death [Kingsepp 2007] • The negative socio-cultural context towards death in mind 	

INTIME

~ SHARE IDEAS OF YOUR BETTER LIFE AND GOOD DEATH ~

[SECTION 1] CONTENTS

1 gameboard, 4 extra pieces of board, 3 health cards [50 credit series/ 7, 30 credit series/ 7, 20 credit series/ 9], 3 hospital cards, 10 occasion cards, 1 funeral wishes card, 1 quiz card, 19 bucket list cards, credits

± 50 credits	HEALTH	OCCASIONS
± 30 credits		FUNERAL WISHES
± 20 credits		QUIZ
HOSPITAL		BUCKET LIST



[SECTION 2] TOKEN : Avatars



Say where your hometown is

Have a family vacation on your parents' 40th wedding anniversary

BUCKET LIST

Relevant storyline between the user & avatar

Mission rules by Quality of Life Scale | The number of credits

Story telling | What happened to the avatar

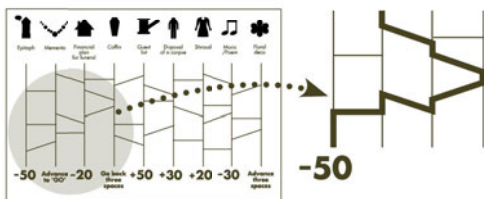
Types of cards

[SECTION 3] GAME IN GAME

This part of the game is to show you have to be flexible when the wind of change hits your life.

FUNERAL WISHES Universality

1. Choose one of the 9 categories from the top of 'Climbing down ladder game'.
2. Follow the instruction as seen from the game. As below, you can choose the downward direction of lines.



[SECTION 4] HOW TO PLAY

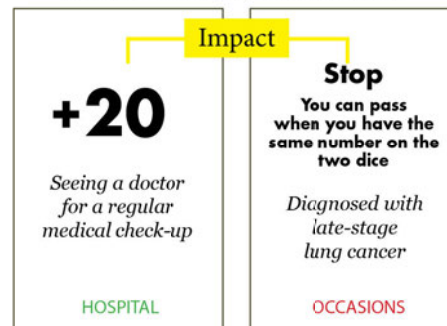
1. Choose your avatar
2. One avatar is nominated to be the caretaker (A key influencer)
3. The caretaker gives each player 50 credits
4. Roll the two dice together
5. Sum the numbers shown on the dice and move your avatar clockwise
6. Turn over the same colour card as you land on. Take action according to the instructions on the colour card* (you have to accept the consequences of your actions. The middle part of the card explains the action the avatar has taken and the bold letters on the top tell the consequences you have to follow).
7. If your move took you onto or past the 'GO' space, take +10 credits.
8. The member who collects +300 credit first is the winner of the game.

Social currency

Impact

Longevity

The best and worst scenarios in life



- The number of credits is related to what happened to the avatars. For instance, if they did something good, you can gain credits. Otherwise, you are due to lose the credits.

[SECTION 5] USERS

2-5 PLAYERS
ALL AGES
RECOMMENDED FOR 16+

Public engagement

Figure 1. '7 factors of gamification' in the manual of 'INTIME' (source based on [Edelman 2011] cited by [Theaker and Yaxley 2013])

The game is closely linked with religious rituals, by making connections between people as an entertainment [Csikszentmihalyi 2009]. There is evidence that gamification in education programmes in the workplace saves significant costs and increases employee engagement by over 50 % [Noh et al. 2013]. Accordingly, design combines shadowy concepts of death with a game, which fuels motivation to engage people in sharing ideas beyond infusing knowledge around death and dying. Because death is typically unpalatable in UK culture, using game-thinking in DCS would be more appropriate for the digital generation, who engage with social media. Advantageously, participants become immersed in learning unconsciously through game mechanics, regardless of time and place, depending on how the content is designed [Donovan and Lead 2012]. Data from interviews confirmed the value of designing death resources. The Dying Matters Coalition (DMC) specifically stated that the DCS can be differentiated if death-related resources are appropriate for younger people, since they have typically been used mainly with patients and older people. Furthermore, the game idea is groundbreaking, and completely new in the UK. The interview data proved the need for the service in the market (e.g. for use in the ‘Death Café’ community). Another key finding (from the interview with The Action Mill in the US) identified that some serious issues around funeral financial services and medical care can be explored in the context of the family system of healing relationships, using a fun-based approach to shared values.

3.3 The DCS game: ‘INTIME’

Prototyping is a powerful tool, when exploring market-changing solutions, to distil thoughts and generate new ideas [Lockwood 2010], leading to devising the game ‘INTIME’ (see Figure 1). The name of the DCS game ‘INTIME’ has a dual meaning:

- ‘Intime/ intimate’: by making deeper emotional connections through the game, users become closer to each other.
- ‘In time’: the game encourages participants to do their best in a finite amount of time. This meaning corresponds to the value of death education: living life to the fullest.

Ideas for the game contents have been developed from the four case studies about social problems and health issues, using design as follows.

- ‘Senior Design Factory’: contributing to integrating society, a blueprint to aid the ageing of the population by activating design discourse and communications.
- ‘RED design model’ (UK Design Council): changing the meaning of Healthcare, focusing on a positive meaning of a preventive approach with ‘Breakthrough collaborative intelligence’ which harnesses mutual help in expanded communities.
- Top fashion brand ‘Paul Smith’: a combination of British humour and vivid colours, in collaboration with popular culture for well-being.
- ‘7even’, a Korean drinking product brand: successful empathetic visuals in comic storytelling with vivid colours and family characters to deliver the concept of well-being and exciting moods.

Using these approaches, the key semantics were sought out to identify positive aspects of death: communities, bright colours, active conversations, a sense of humour, simplified signs, better health, and a good death.

The key semantics have been developed by combining the categories of both health and death. To establish the integrated views, the contents have been listed from numerous resources based on ‘Tips For Better Health’ by Liam Donaldson, resources and information pages on the website of DMC, and the guidelines for ‘Well-Dying’ by Kim [2012] through the literature review. However, it is necessary to verify that the quality of contents is suitable for the game and to continuously generate resources with increasing engagement. Backing up an exclusive process of developing ideas, the ‘ideas platform’ can be implemented with the play mechanism; this enables participants to prompt new ideas with an open process of proposals and appreciation, leading to objective evaluations [Park 2013]. The platform provides guidance for the process, including the rules of play, to the influencers of public institutions and communities by facilitating the use of the service [Park 2013]. Adopting gamification from the platform in DCS, schools, hospitals, and the government, who can communicate directly with many people, could be the main beneficiaries and influencers. Further, the key secondary research findings

noted that the new DCS can be a platform to trigger conversations in communities, enabling consumers to enjoy pleasurable experiences through proactive interaction. Design changes behaviour and attitude by a system for interaction through peer feedbacks and previews [Lockton 2010]. While current idea platforms (e.g. Quirky, Kaggle) are prone to technology leaks, the DCS web version is expected to reduce those risks through the use of anonymity (e.g. using avatars). Configuring the platform for the new DCS, the four key design elements are combined.

(1) Colours (Figure 1, section 1)

Significant points function as a signpost; on the opposite side of the colours, action rules and stories are shown divided into six categories: Health, Hospital, Occasions, Funeral Wishes, Quiz and Bucket List. Further, the Health cards offer 50, 30 or 20 credits.

(2) Avatars (Figure 1, section 2)

As already discussed, previewing one's own death tends to often evoke a visceral aversion. On behalf of users, avatars in play mechanics adapt to using tokens. The structure of storytelling characters enables the user to have multi-identities, thereby diversifying possible scenarios and increasing social networks.

(3) Symbols (Figure 1)

Simplified death resources include:

- Implied meaning of better health: facing mortality (e.g. the name 'Intime').
- Bright colours, which break the stereotype of the colour black for death, a negative connotation of death derived from the historical 'Black Death' in Europe, when mass deaths were caused by plague [Rosenberg and Peck], cited by [Bryant 2003].
- Sense of humour: adopting the shape of a coffin to humorous effect, a light-hearted quiz comprising useful information about dying and procedures for a good death, parodying icons: Steve Jobs' family (see Figure 1, section 2).
- Community or family: for play with two players or more (Figure 1, section 5), inter-connected mission rules in a group of avatars (Figure 1, section 2).

(4) Gamification (see Figure 1)



'INTIME' fits Richard Edelman's seven factors in gamification for public relations [2011], cited by [Theaker and Yaxley 2013]: social currency, universality, motivation, rewards, employee engagement, longevity, and impact. Credits on the Health cards relate to the quality of life scale, as a unit of 'credit'. Dealing with credits eases peer tensions and can be given as rewards for interaction:

- Social currency (Figure 1, section 4): participants view which of their achievements bring leverage effects on members.
- Universality (Figure 1, section 3): death resources are easily available to the public and widespread through retailing entertainment outlets tackling global issues.
- Motivation: the further participants go into this game, the more likely they are to make wiser decisions for life.
- Rewards (Figure 1, section 1): various interactive elements are performed through stories.
- Public engagement (Figure 1, section 5): a showcase of improved performances between participants can lead to collaborative intelligence by discussing death.
- Longevity (Figure 1, section 4): gamified interaction brings participants together.
- Impact (Figure 1, section 4): peer pressure encourages people to change their behaviour.

'INTIME' is one of seven case studies analysed to gain more insights and examine the probability of combining the strong factors of each game and collaborating as a series of games. 'INTIME' is based on the format of the best-selling board game 'Monopoly': role-playing using dice and randomly-chosen tokens, such as unexpected life occasions (e.g. untimely death - Occasion cards) (Figure 1, section 4). In 'Monopoly, the game ends when everyone except the winner goes bankrupt, but in

‘INTIME’ there is no loser: the winner is the player who reaches his/her goal first. The aim of ‘INTIME’ is a virtuous circle: creating peer tensions and thrills, to encourage playing further games.

Table 3. Comparison of the games, ‘INTIME’ and ‘MGG’ (source adopted from ActionMill Ltd. [2013])

Beta-version of the game, ‘INTIME’	My Gift of Grace (MGG)
	
<ul style="list-style-type: none"> • Players share one set of the game • It aims to cultivate a critical sense by coming across whole life issues for better health and good death. • Users feel imaginative empathy for avatars in virtual scenarios which provoke fun factors with other members. • During the play, an immediate feeling of reward and penalty can be given with different lessons from vicarious experiences by the game. • It follows random sequence; unexpected missions create peer tensions and thrills. • It motivates users to be familiar with better understanding of death unconsciously even in minimizing personal exertions. 	<ul style="list-style-type: none"> • Players need a set of cards respectively. • It aims at End-of-life care about preplanning : values in life, belief and caring wishes. • Users are forced to fill in given questions on own cards first silently alone. • After the play, rewards can be given by being more aware of ones’ own wishes with their caregivers provided that the cards are filled in. • It follows the sequence: writing up own answers for end-of-life plan, short conversation about the answers, and further discussion which entails personal exertions to achieve the missions on the ‘Activity’ cards.

Since DCS can benefit everyone’s well-being with a better understanding of death, healthcare is closely linked with DCS. The brand Nike+ successfully introduced gamification into healthcare. The Nike+ strategy was extended into DCS, since maximising running experiences through socialising and competition by levels of ranking plays an important design role in Nike+’s success; similarly, experiencing healthy ways of life is applied to a credit system as an index of quality of life for players to compare their health rankings in ‘INTIME’. Both bring rewarding experiences by gaining recognition of an accomplishment.

The famous home-video game for health, ‘Nintendo Wii fit’ combines fun and fitness by influencing body weight and shadowing motions. Similarly, ‘INTIME’ provides missions for players to take actions during play (e.g. Bucket List cards) (Figure 1, section 2).

The card game, My Gift of Grace (MGG) by ActionMill Ltd. [2013], introduced by Kickstarter.com, has much in common with ‘INTIME’ as regards death education. Table 3 provided a comparative analysis of the two games. Whereas ‘INTIME’ cannot be played alone because of the co-creation element, MGG is more focused on individual activity to prepare for end-of-life. A significant difference is that ‘INTIME’ avatars can address serious and extreme life events by encouraging people

to imagine limitless life issues. Here the correlations between users and avatars of the action cards generated empathy and a sense of fun. Since the avatars' stories are closely connected with following instructions on the cards, serving avatars' life events creates a preview of the worst and best scenarios in reality with vicarious pleasures and risks (Figure 1, section 4).

In 'transmedia storytelling' [Rose 2012], Whysoserious.com brought a new gamification paradigm to empower the digital age. The website crossover both on- and off-line, using the storytelling sources of the movie 'The Dark Knight', gives audiences borderless experiences between reality, online virtual space and the movie; it makes potential audiences track down routes using storytelling and puzzle out quizzes linked with hidden subplots in the movie: a technology-driven model absorbed into commercial culture. Similarly, quiz cards are set in 'INTIME' with resources to cultivate the imagination and generate interest in death through active participation (e.g. Quiz: 'When Thomas Edison died in 1941, Henry Ford captured his dying breath in a bottle'. Answer: dying breath). The relationship between death issues and popular culture proves that people can be close to death, while the popular contents can help people develop critical attitudes of mind toward life and death [Harper 2010].

By making open educational resources easily available, the DCS game can be developed as a web platform for a 'Click-to-donate' such as Freerice.org; the website is accessible to the public to build up knowledge, propelled by the internet as the most powerful tool to influence trends. Participants must have a correct answer to acquire the credits for a donation. The profits and the website running costs would be covered by sponsors from adverts displayed below questions on the website, or worldwide non-profit organisations involved in health and deathcare.

In the current digital game industry associated with designing issues relating to death, death has lost its link to reality in digital games with hyper-real negative images of death, which can cause problems by impeding imaginative development and distracting concentration (e.g. World War II Digital Games) [Kingsepp 2007]. Meanwhile, King et al. [2013] claimed that game mechanics in healthcare will become more important with mobile applications by increasing IT developers' involvement. In refining the ethics, deviant factors must be controlled:

- Evoking negative and violent thoughts about death.
- Glamorised death images available to people considering suicide.
- Graphically explicit images of death.

3.4 Design Driven Innovation

Radical changes in cultural context have achieved a DCS breakthrough, driven by the DCS vision: sustainable development in society, culture and technology. The new DCS strategy fits with 'Design Driven Innovation (DDI)'. This shifts towards being firmly vision-oriented rather than user-centred [Verganti 2008]. Palliative Care Services (PCS) rely on technology-driven medicalisation: medical science is oriented towards patients' pain control, but there are still difficulties in communicating with acute patients. Conversely, Funeral Services (FS) deploy a user-centred approach: in an emerging market, customers vulnerable to poor service may prefer a customised funeral ceremony or do-it-yourself funerals without the services of a funeral director, and pre-paid funeral insurance, to avoid having to thinking about death, while Death Care Service (DCS) by DDI resonates with the design discourse of death by being closer to death in life. In the current DCS meaning of prearranged funerals, the market has been largely influenced by individual funding ability and consumer tastes [Banks], cited by [Bryant 2003]. The method for comparing existing services is mainly borrowed from the strategy of design-driven innovation as the radical change of meanings. With current cultural attitudes to death, the DCS can be presented as a company's gamified platform, and has become more vision-oriented since DMC offered support to develop and promote the game service. DMC is run by helping the public engage in a social discussion about death, dying and bereavement across the National Council for Palliative Care, and the healthcare and funeral sectors.

4. Pilot test and iterative process in design thinking

After setting the new rules for playing, the first pilot test was employed as an evaluation method. The key findings from the test can be summarised as follows: the service design may contribute to

changing perceptions about death using storytelling effects with interesting gamified elements in the death resources of the game. All participants were nevertheless biased against the game because of dreaded activities associated with funerals, although the death resources combined with the theme of health succeeded in encouraging them to think more positively about death at the start of the game. Among the gamification elements, Rewards, Impacts, and Longevity were effective since the players often showed over-excited reactions when they received serious penalties and more credits by steadily comparing their credits with other members' towards the goal. Whereas the participants found health narratives too obvious, they found the contents about death more intriguing than the issues for better health. For instance, all participants experienced horror and intense catharsis with scenarios about dying suddenly or violently; thrilling experiences ended with a dramatic serendipitous return to reality. Another important finding was a change in feelings about death, which allowed the participants to bond afterwards. However, more concrete scenarios were required, combining the game elements of Universality and Public engagement, since the lack of interactive factors between avatars' stories was criticised by less engagement in the other players' turns. This assessment should be further considered through an iterative process, if it is to be applied to practical service development.

5. Conclusion: limitations and future research

The media often manipulates the familiar subject of death (e.g. celebrity tragedies), but abusing the more violent aspects of death has often obscured the importance of death education. The research revealed the role of design in gamification: weaving interesting scenarios and actions to create fun to change behaviour towards the funeral industry. Applying the design elements to DCS through gamification could be interesting conclusions that may be taken into further cases. However, the research relied mainly on the authors' analysis of multi-disciplinary desk research, because it was not feasible to assume that there are the professionals for the newly defined DCS. In a sense, the DCS enables the user to become an expert about death and dying, by dying many times in various virtual ways with a role-play game. Future studies could enhance the emotional design experience by comparing the sensitivity of death images between different target groups to better understand death and dying using visual communication. In order to introduce communities to this game, the change of socio-cultural context might need to be preceded by conceiving positive mental images of death through more user-friendly signs and visuals. Conversely, the gamification would counteract the concerns through online games which could lead to higher public engagement even though the game at this stage was off-line. Above all, interactive narratives and scenarios between avatars should be optimised by considering the sensitivity of personal experience and offering useful information on human values. Death resources should be viewed in public for the practical use of games by involving communities (e.g. co-creation with DMC). Ultimately, DCS may be able to proactively help everyone live life to the full. Anchored in a design-led strategy, positive attitudes about death can be achieved through gamification.

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